METHOD AND APPARATUS FOR PROTECTING ONGOING SYSTEM INTEGRITY OF A SOFTWARE PRODUCT USING DIGITAL SIGNATURES

Abstract of the Disclosure

A method, apparatus and computer program product are provided for
5 protecting ongoing system integrity of a software product using digital
signatures. A core product load manifest for protecting ongoing system
integrity of a software product having a plurality of pieces includes a
manifest header including header attributes of the software product. A list of
a plurality of manifest items is stored with the manifest header. Each
10 manifest item identifies a corresponding piece of the software product. Each
manifest item includes at least one attribute. A manifest digital signature is
stored with the manifest header. The manifest header, the header attributes,
each of the plurality of items, and each item attribute are included in the
manifest digital signature. A digital signature is computed for each signable
15 piece of the software product and is stored with the piece of the software
product. The digital signature of each signed software product piece is
excluded from the core product load manifest. An amended manifest is
created for identifying added and deleted pieces of the software product and
is chained to the core product load manifest. Each signable, added item in
20 the amended manifest has a digital signature that is excluded from the
amended manifest.

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